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TO: Daron Haddock, Permit Supervisor

FROM: Priscilla Burton, Senior Reclamation Soils Specialist

RE: Second response to Division Order 92C. Skyline Mine. Utah Fuel Co. ACT/007/005-92K. Carbon Co. Utah. Folder #2.

SUMMARY:

Coastal States Energy was issued a permit renewal on 5/5/92 for the Skyline Mine. The renewal included a Division Order to address deficiencies with the Skyline Plan. Responses were received on 10/5/92 and were responded to by the Division on 12/7/92. A second submittal was received 1/27/93.

The deficiency is repeated below, followed by a discussion.

TECHNICAL ANALYSIS:

R645-301-231.400. Topsoil handling and storage areas.

Deficiency #1

Skyline must edit Table 2.11-1 and Table 2.11-2 for accuracy in computations and resubmit a corrected copy of each Table.

Analysis:

Tables 2.11-1 and 2.11-2 were deleted in the 5/5/92 submittal. Information on stored topsoil quantities is provided in Vol 1, pg 2-114 and Vol 3, Sec 4.6-4. Table 4.6-4 was revised with this submittal. Reading Table 4.6-4 along with the information on page 2-114, it is apparent that:

1. There is adequate topsoil for the National Forest areas of the portal yard (76,291 yd^3 stored and 74,883 yd^3 anticipated to be used);

2. There is adequate topsoil for the south fork break out (2,990 yd^3 stored and 2,275 yd^3 anticipated to be used);

3. There is 42,985 yd^3 of soil available in the rail road load out storage pile and an

additional 15,295 yd^3 of soil available for non-Forest areas in the portal yard storage pile. The sum total available for the rail road load out, the wells and the waste rock site is 42,985 yd^3. The sum total anticipated to be required on the above mentioned sites is 42,607 yd^3. The excess is less than the accuracy of the calculations.

Compliance:

A footnote to the Table states that 34,524 yd^2 [SIC] will be required for private lands. Whereas, the Division calculates that the sum of cover and topsoil required for private lands is 42,607 yd^3. Since subsoil for cover material was not salvaged from the disturbed areas for cover of the Scofield Waste Rock (SWR) site (see page 2-114) and since no excess spoil is anticipated to be available for cover of the SWR site, the cover requirements must be achieved utilizing the available stored topsoil material.

Outstanding Deficiencies:

1. Utah Fuel Co. does not have an excess storage of topsoil for their anticipated needs. The footnote is misleading and should be corrected to indicate the need for 42,607 yd^3 of topsoil and cover material on private lands (paragraph 2, page 4-38(d).

2. Table 4.6-4 requires some editing to be meaningful: headings of columns should appear above the intended column and yardages should be reported as three dimensional volumes in the footnotes rather than areas.

CONCLUSIONS:

As noted by Utah Fuel Co. the field trials may substantiate a lesser cover requirement for this Scofield Waste Rock site in the future. Material dedicated to meet the requirements of R645-301-553.250 may be reduced following the analysis of vegetation success on field trials which will be implemented (pg 4-38a and 4-38b).

At this point in time, U.S. Fuel Co. does not have an excess of topsoil storage.

Two deficiencies with Table 4.6-4 are stated above which should be corrected by Utah Fuel Co.

indicated by the low total nitrogen content from all vegetation types.

In summary, the most important fertilizer to be applied in reclamation attempts is nitrogen. The addition of nitrogen should be timed with suitable moisture content in the soils (fall and spring). A soils map of the portal-yard area has been prepared and is available at the Skyline Mine office. The soils are classified by the vegetation type with which they are correlated, as recommended by the Soil Conservation Service. Information from other areas to be disturbed can be extrapolated from the vegetative map and from the soil nomenclature assigned on the portal-yard area map.

Only soil from the "A and B" horizons were collected and put into the topsoil stockpile and considered as "useable" for reclamation purposes. The soil from the "C" horizon was considered unsuitable and therefore not removed and not put into the topsoil stockpiles. The portal area topsoil stockpile contains 91,586 Portal cubic yards of top soil. Included in the portal area stockpile is 15,295 cubic yards of topsoil removed from the conveyor bench. The topsoil removed from the conveyor bench is non-National Forest Service Topsoil, and can be used on non-National Forest Service disturbed areas. The remaining 76,291 cubic yards is soil removed from National Forest lands, and must be used within the National Forest boundaries. The loadout area topsoil pile contains 27,690 cubic yards. The South Fork topsoil stockpiles contain 2,990 cubic yards and was derived from National Forest Service lands, and will all be used on National Forest lands in the South Fork area.

TABLE 4.6-4

TOPSOIL REDISTRIBUTION

	Acreage	Planned Depth Inches	Cubic Yds
Loadout Area			
South Slopes	10.52	18	25,458
North Slopes	3.30	12	5,324
Sub-Total	13.82		30,782
Portal Yard Area			
South Slopes	20.03	18	48,473
North Slopes	16.37	12	26,410
Sub-Total	36.40		74,883*
Water Tank and Well Pads	.26	12	419
Waste Rock Disposal Site	1.67	48***	10,777***
South Fork Breakout Area			
South Slope	.30	30	1,210
North Slope	.66	12	1,065
Sub-Total	.96		2,275*

available in storage is 27,690 at RRLO + 15,295 from portal = 42,985 to be used on load out wells + waste rock - total needed is: 30,782 + 10,777 + 419 + 629 = 42,607

74,291 set aside

2990 stored

CHANGE TO		TEXT		
Table 4.6-4	Page 4-38(c)	Table 4.6-4	Page 4-38(c)	Date 01/21/93

TABLE 4.6-4 (Continued)
TOPSOIL REDISTRIBUTION

	Acreage	Planned Depth Inches	Cubic Yds
Overland Conveyor Route	.39	12	629
GRAND TOTAL	53.50		111,682**

*Both of these areas are located on National Forest lands and 78,281 square yards of National Forest topsoil was removed and stored from these area. The topsoil over and above that planned for redistribution that came from National Forest lands will be redistributed on National Forest lands, as directed by the Manti-LaSalt National.

**77,158 square yards are need for revegetation on National Forest lands and 34,524 square yards are needed for revegetation on private lands. As indicated in Section 2.11, there is 79,281 square yards of topsoil available for revegetation on National Forest Lands and 42,985 square yards of topsoil available for revegetation on private lands.

***Field tests will be conducted to determine actual depth of topsoil needed for the waste rock site. Therefore, this planned topsoil depth may change in the future.

ADDITION TO		TEXT		
Table 4.6-4	Page 4-38(d)	Table 4.6-4	Page 4-38(d)	Date 01/21/93